



STATE OF COLORADO



1963

ANNUAL REPORT

DIVISION OF NATURAL RESOURCES

COAL MINE INSPECTION DEPARTMENT



STATE OF COLORADO





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COAL MINE INSPECTION DEPARTMENT

CONR M C6 1963 C, 2

LETTER OF TRANSMITTAL

April 1, 1964

To His Excellency John A. Love Governor of Colorado

Sir:

It is an honor to submit to you the Annual Report of the State Coal Mine Inspection Department, Division of Natural Resources of Colorado, for the year ending December 31, 1963.

Respectfully,

THOMAS ALLEN
Chief Inspector Coal Mines

RICHARD T. ECKLES Coordinator, Division of Natural Resources

THOMAS ALLEN, VETERAN CHIEF COAL MINE INSPECTOR RETIRES

Thomas Allen, EM, retired as Chief Coal Mine Inspector for the State of Colorado on December 31, 1963, after holding this office for 29 years and 2 months. This is the longest term of this office held by any Chief Inspector in this State.

During his first years of office, Mr. Allen made one continuous effort to advance stronger and more strict laws for the safety of men employed in coal mines, and for more modern methods of mining. He issued numerous directives as the Chief Inspector, as provided by law, which were observed in Colorado coal mines from 1936 until 1951 when the State Coal Mining Laws were revised to include the above directives in the Colorado Revised Statutes of 1953 in Chapter 92. Most of these laws are contained in the Federal Code for 1953.

Thomas Allen continually stressed the importance of safety training of all miners in Mine Rescue and Recovery work and First Aid training and with the belief that safety starts at home, sponsored first aid training for the women and children of coal miners. With the financial assistance of the State Board of Vocational Training, Mine Rescue training was given throughout the State, which proved its worth many times in conquering mine fires and restoring them for further production.

"Mr. Coal," as he is known in national coal mining organizations, has written many articles on modernization in coal mining operations, safety practices, combatting mine fires, and courses of study for Shot Firers and Coal Mine Officials. Mr. Allen assisted in establishing the course for coal mining engineers at the Colorado State School of Mines, by giving weekly lectures in 1948 and 1949.

In retirement, Mr. Allen expects to continue his writing and make a monthly contribution to a new mining publication in Chicago, Illinois, and act as a consulting engineer.

OBITUARY

Thomas Allen, retired Chief Coal Mine Inspector, died from a heart attack at the Presbyterian Hospital on March 9, 1964. Survivors include his widow, Mary; a daughter, Mrs. Douglas Jorn of Hastings, Nebraska; two sons, Thomas, Jr., of Salt Lake City, Utah, and Robert of Palisade, Colorado; a sister, Mary of Croydon, Surrey, England: six grandchildren and seven greatgrand children; also a step-daughter, Mrs. Marilynn Dobbins of Bernardsville, New Jersey.

RETIREMENT OF J. J. RODDY, STATE INSPECTOR

After 25 years and 8 months as a field inspector for the State of Colorado, "Jack" Roddy retired on December 31, 1963. He resided in Grand Junction and covered Archuleta, Delta, Gunnison, La Plata, Mesa and Montrose counties.

Mr. Roddy was employed in Colorado coal mines for 53 years, starting as a miner at the New Castle Mine in 1910. He was certified as a Mine Foreman at the Cameo Mine in 1926, and was Superintendent of the Keystone Mine in 1936 until his certification as a Deputy Coal Mine Inspector in October, 1937.

Mr. Roddy was always active in safety work, with vast experience in mine rescue and recovery work at mine fires and after explosions. His work as a first aid team member and instructor continued throughout the years he was associated with coal mines.

Mr. and Mrs. Roddy plan an active retirement in travel and developing their summer cabin on the Fryingpan in Pitkin County. Jack is an ardent hunter and fisherman.

A congratulatory certificate of appreciation for long and faithful service to the State was presented to Mr. Roddy by John A. Love, Governor of Colorado.

PERSONNEL OF DEPARTMENT

CHIEF COAL MINE INSPECTOR - THOMAS ALLEN

Office - 318 State Services Building Denver, Colorado 80203 Telephone - 222-9911

Ext. 2616

Home - 1285 Albion Street Denver, Colorado 80220 Telephone 377-5572

DISTRICT INSPECTORS - (Counties within each district)

Dist. #1 - DONALD HASKE - 4561 Perry St., Denver, Colorado 80212 Telephone - 477-9295

(El Paso, Fremont (16), Jackson and Weld)

Dist. #2 - OSCAR T. RICE - 919 Tascosa, Trinidad, Colorado Telephone - Trinidad 846-2634

(Huerfano, Las Animas and Fremont (9))

Dist. #3 - GRANT McCONNELL - P.O. Box 376, New Castle, Colo. 81647 Telephone - New Castle 984-2370

(Garfield, Moffat, Pitkin, Rio Blanco and Routt)

Dist. #4 - JOHN J. RODDY - 1404 White Avenue, Grand Junction, Colo. Telephone - Grand Junction 242-5915 (Delta, Gunnison, La Plata, Mesa and Montrose)

GENERAL OFFICE

Sr. Administrative Assistant Veda Burford 720 Jersey St., Denver, Colo. 80220

Telephone 377-4317

Sr. Account Clerk Evelyn Miller

3357 W. 36th Avenue

Clerk-Stenographer Jo Anne M. Osborn

5230 Stuart Street

Intermediate Clerk-Typist Marjorie T. Sutton

1203 South High Street

BOARD OF EXAMINERS FOR COAL MINE OFFICIALS

Thomas Allen, Chief Inspector - Denver 80203 Niles E. Grosvenor, E. M., Secretary, Golden Frank Kolar, Jr., 2028 W. 9th Street, Longmont Mathew J. Mlakar, P.O. Box 271, Somerset Robert L. Plum, P.O. Box 11, Glenwood Springs - (4-24-63)

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CHIEF COAL MINE INSPECTOR

DONALD HASKE - Certified 2-17-64
4561 Perry Street, Denver, Colorado 80212
Telephone - 477-9295

STATE COAL MINE INSPECTOR - DISTRICT

J. ARTHUR HASKE - Certified 3-16-64

INTRODUCTORY COMMENTS

BRIGHT FUTURE FOR COAL - In 1963 there was an increase in production of 314,850 tons of coal over 1962, with a total of 3,707,440 tons. A total of 104 mines in 1963, employed an average of 201 less men than in 1962, who worked an average of 10 less days per mine than in the previous year; but there was an increase of 2 tons of coal mined per miner, per day.

The coal production in 1963 was the highest since 1951, which was the lowest tonnage since 1889. The peak production in Colorado coal mines during 100 years - from 1864 to date was in 1918, with a daily production per miner of 5.2 tons. In 1963 the daily production per miner was 16 tons.

The present increase in tonnage is largely from the strip pit mines in Routt County, the Energy and the Edna, which ship their entire production directly by rail to Denver. Contracts totalling \$65 million for the mining of around 12 million tons of coal during the next 15 years will be delivered to the Public Service Company generating plants in the Denver area. There was also a marked increase in the production of coking coal to the steel mills of the C. F. & I. Corp. in Pueblo and of the Columbia-Geneva Division of the U.S. Steel Corp. in Utah.

The Energy strip mine operated by the Energy Coal Company, a subsidiary of the Morgan Coal Company, of Indianapolis, Indiana, is located near Steamboat Springs. They started production in Nov., 1962 and in 1963 completed installations for one of the most modern surface coal mines in the United States.

The Edna strip mine at Oak Creek was purchased from the Edna Coal Company by the Pittsburg and Midway Coal Company, a subsidiary of the Spencer Chemical Co. of Kansas City, Missouri, on September 21, 1961. The Edna Coal Company also sold the Navajo Strip Mine in Montrose County to the Peabody Coal Company of St. Louis, Mo., on September 15, 1963. The name of the mine will be changed to the Nucla Strip in 1964.

The Peabody Coal Company has a contract to supply coal for the new REA power plant being constructed near Hayden, Colorado in Routt County, which is intended to supply power for the REA network in Northwestern Colorado and adjoining states.

ACCIDENTS REDUCED - Only one fatality occurred in 1963, which is the best record since 1957 which was the only year in the history of our State when we had no fatalities, from November 3, 1956 to February 2, 1958.

NEW HEAD OF NATURAL RESOURCES - Richard T. Eckles of Monte Vista, Colorado, was appointed coordinator for the Division of Natural Resources by Governor John A. Love, effective August 15, 1963.

DIRECTIVES BY THOMAS ALLEN

- 1. Prohibition of coal mines being used for fall-out shelters, for the safety of persons and animals. 2-20-63.
- 2. Approval for use of water cartridge stemming, approved by the U.S. Bureau of Mines. 8-28-63.
- 3. Approval for the use of ammonium nitrates as explosives in strip pit mines, to be governed by rulings of the U.S. Bureau of Mines.
- 4. Strip pit mines Spoil banks are to be rounded off to as smooth a contour as possible, within the close proximity of the working operation. 10-8-63.

STRIP PIT REGULATIONS - On June 4, 1963, a meeting was called by Chief Inspector Thomas Allen, of underground and strip operators, operators' associations, U.S. Bureau of Mines, U.M.W. of A., State Land Board, representatives of powder companies, and the State Coal Mine Inspectors, to discuss formulating a separate State Code for surface mines.

A committee composed of 5 men was selected to make an extensive study of stripping rules from other states and the Federal code, in comparison with the existing State Laws. The committee of E. E. Quenon of Peabody Coal Co., Chairman; Lloyd J. Beer, Beer Coal and Const. Co., Fremont County; W. W. Brown, Edna Coal Co., Montrose County; George Hays, P. & M. Coal Mining Co., Routt County; and Miller Spears, Energy Coal Co. of Indianapolis, Indiana, made recommendations to the Chief Inspector which have been under consideration.

Tentative regulations for strip pit mining will be issued in the early part of 1964 for a trial period before being presented to the State Legislature for approval.

MINE FIRES - The Black Raven Mine in Garfield County reported a fire on May 27, which was promptly investigated and as it was impossible to fight the fire direct, immediate plans were made to seal off

the fire area. State Inspectors McConnell and Haske made daily inspections and after various attempts were made to restore the return air course, the fire increased and the gas content behind the seals increased, and due to the lack of workmen to perform the necessary work to recover the mine, Federal Inspector Reay and Mr. Lindeman of the U.S.G.S. concurred in the opinion that the mine be permanently sealed in September.

During the year frequent checks were made of old fire reoccurrences at the Streeter, Sterling and Washington mines.

GAS IGNITION - At 8:30 A. M. on November 11, the ignition of an accumulation of gas burned 9 men, 4 of which were compensable injuries losing 9, 10, 12 and 13 days; fortunately, of the other 5 men, one man returned to work the same day and the other 4 returned to work within 2 days.

State Inspectors Haske and McConnel and Federal Inspectors Roberts and Ratliff investigated all conditions and posted a closure order until the investigation was completed on November 16. The conclusions were that: (1). The line brattice was installed too close to the rib and with 71,000 cfm in the section, it is possible that the brattice was pushed against the rib or the end flap was installed loosely and sealed off the return side of the brattice. (2). Methane gas had accumulated in the face area after the unit foreman had made his examination a short time before, or which was not detected. (3). After checking all equipment and found to be in a permissible condition, it is believed that the source of ignition was the tungston carbide bits of the mining machine coming in contact with some hard, brittle rock that had fallen from the roof, causing sparks which ignited the gas mixture.

RECOMMENDATIONS FOR FUTURE PRECAUTIONS: (1). That examination of face areas for gas and all other conditions pertaining to safety, shall be made at more frequent intervals and more thoroughly. (2). Line brattice shall be installed and maintained with at least three feet clearance between the ribs and the closest contact with the line brattice.

MAP PROJECT APPROVED BY STATE LEGISLATURE - The Forty-Fourth General Assembly of Colorado in 1963 appropriated the sum of \$9,000 to be paid to the Colorado School of Mines Foundation for the compilation and preparation of maps relating to coal reserves in

Colorado, showing the worked-out areas and location of mines worked from 1883 to date.

A contract signed by Thomas Allen, Chief Coal Mine Inspector and Orlo E. Childs, President of the State School of Mines was approved by Governor John A. Love, E. G. Spurlin, State Controller, Louis S. Middlemist, State Purchasing Agent and Frank E. Hickey, Deputy Attorney General.

The assembly work of reference to the maps on file in this office, started without delay, being done by the engineering students under the supervision of Prof. Niles E. Grosvenor, E.M. The maps to be suitable for reproduction are to be completed by June 30, 1964, and are well under way at this time.

The information on these maps will be invaluable to research groups and to the numerous and frequent requests to consult our records and maps for future developments.

HONOR ROLL FOR 1963 - 50,000 or more man-hours per injury.

				Non-	Man-Hours
Mine	Company	County	<u>Fatal</u>	Fatal	Per Injury
Allen	C.F. & I. Corp.	Las A.	0	4	172,830
Eagle	Imperial Coal Co.	Weld	0	1	92, 485
Edna Strip	P. & M. Coal Co.	Routt	0	1	90, 478
Somerset	Columbia-Geneva Div.	Gunn.	0	2	86, 877
	U.S. Steel Corp.				
Energy Strip	Energy Coal Co.	Routt	0	0	53, 546

HONORABLE MENTION - 20,000 to 50,000 man-hours per injury.

Sterling	McNeil Coal Corp.	Weld	0	0	47, 436
Lincoln	Clayton Coal Co.	Weld	0	1	44,615
Washington	Clayton Coal Co.	Weld	0	3	29,248
Pioneer Canon	The Corley Co.	Fremont	0	1	28,698
Calumet #2	Delcarbon Coal Co.	Huerf.	0	1	24, 024
Dutch Creek	Mid-Continent C. & C.	Pitkin	0	6	21,863
Nucla Strip	Edna & Peabody Coal	Montrose	0	0	20,137

SUMMARY OF FIELD WORK

Number of inspections	509
Number of check inspections	113
Examinations for Shot Firer	28
Serious accidents investigated	12
Complaints investigated	26
Mines closed for legal violations & non-	
compliance with recommendations made	13
Suspension of officials' certificates	4
Checks on mine fires - Reoccurrences	18
Investigations-gas ignition-explosion	1

FINANCIAL STATEMENT FOR CALENDAR YEAR 1963

RECEIPTS		
Coal Tax	\$24,751.18	
License Fees	5,040.00	
Law Books Sold	29.00	
Misc Including sale of old		
Equipment	506.14	
General Fund Appropriation	47,954.18	
Total		\$78,280.50
EXPENDITURES		
Salaries - Field & Office	66,282.80	
Travel - Hotels, Meals, Gasoline, etc.	4,198.26	
Equipment - Field & Office	1,758.80	
Workmen's Compensation	1,455.00	
Supplies - Field & Office	467.84	
Telephone & Telegraph	422.30	
Postage	355.00	
Maintenance & Repair of Equipment	328.14	
Printing	307.01	
Insurance - Cars & Equipment	173.15	
Garage Rent - Field & Office	120.20	
Surety Bonds	105.00	
Moving - Office	11.00	
Map Project	2,296.00	
Total		\$78,280.50

GENERAL SUMMARY OF THE COLORADO COAL STATISTICS FOR 1963

e c	46	23 313 52 25 1	14	
37 Totals 266, 203	2,778,443	Showers hines stations		$\frac{1}{ren}$
Electric Battery Compressed Air ers 1 3 4 ipple 20 S. Ammonium .) Nitrate	2, 301, 890 Electric	Box Car Loaders Bath Houses 21 Shower Rock Dusting Machines Battery charging stations Aerial Trams	Drifts Coal slopes Coal 124, 274	s: Wives Minor Children
o circ t	1,500 Ele	Boy Bat Roc Bat Aer	ratus: Drifts Coal s	Dependents:
c Trolley 80 3,315 Motor gra Scarifiers Tractors Trucks to Airdox Othe (Mis	2 56 94		hing apparatus: 24 nnnels 3 Drifts olted 9 Coal sl Tons of washed coal	De
: Electri : Electri 119 ic Cap s 5 8 s 5 10 ils 6 Cardox	Steam Mechanical	Steam Plants Compressed air Surface	gen breat Masks Rock tu Roof-bc	
- Locomotives: Hoists: Shuttle Cars 135 Electric JIPMENT Drag lines Jackhammers Drills Power shovels - 7	07, 750 8 35 60	196 37 161 2	Ox. Gas. Gov. Rock slopes 13 On railroads 19 ally treated 249,	Fatalities 1 Non-Fatals 70
MACHINERY The Safety 4 NERY & EQU 15 6 s 11 5 (Pounds) Permissible 1 266, 203 1 100	SCELLANEOUS Gas Gravity Gravity	plants Electric ors:Undergrc s MENT	450 28 ORMATION 5 Rock nes On r chemically	Fata Non-
HAULAGE MACHINERY - Locomo Hoists Shuttle LAMPS: Flame Safety 435 E STRIP MACHINERY & EQUIPMENT Bulldozers 15 Drag li Caterpillars 6 Jackhar Compressors 11 Drills Loaders 5 Power EXPLOSIVES (Pounds) Underground 266, 203 - Strip Pits 1.100 207.75	SURFACE & MISC Hoists: Tipples:	Coal washing plants Pumps: Electric Air Compressors:Underground Telephones Gravity Planes SAFETY EQUIPMENT	Self-Rescuers 450 Inhalators 28 GENERAL INFORMATION (As Reported) Shaft Mines 5 Rock slopes 13 Number of Mines On railroads 19 Tons of coal chemically treated 249, ACCIDENTS - (See page 26)	Total number:

DIRECTORY

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
A. B. C. Coal Alvidrez & Sons Annex Coal Annex Coal Baldy Coal	Walsenburg Florence '' '' Trinidad	Bert's Black Knight #4 Annex #2 Annex #2 Strip Baldy #2	Same	Huerfano Fremont
Barstow, Aul&Peterson Bear Coal Beer Coal&Const.,Inc. Bendetti, H. & L. Berwind Coal	Somerset	Blue Flame Bear Beer Strip New South Canon Berwind Canyon	Same	Mesa Gunnison Fremont Garfield Las A.
Bisulco Partners Black Beauty Coal Blue Ribbon Coal Boulder Valley Coal Bowman Coal	Aguilar Walsenburg Cedaredge Denver (2) Trinidad	Bisulco Black Beauty Blue Ribbon Boulder Valley#3 Bowman's	Same '' '' Dacono Same	Las A. Huerfano Delta Weld Las A.
Bradley Bros. Ent. Brodhead Coal C. F. & I. Corp. Can. Blk. Diam. Coal Canon Liberty Coal	Rifle Trinidad Denver (2) Florence Canon City	Harvey Gap #3 Brodhead #4-A Allen, E. &W. Port Can. Blk. Diam. Canon Liberty #3	Same	Garfield Las A. " Fremont
Canon Monarch Coal Canon National Coal Canon Oak Creek Coal Carestia, Ralph Cedar Canon Coal	11	Canon Monarch#4 Canon National Canon Oak Crk. #2 Carestia Strip Cedar Canon	11	Fremont
Champion Coal Mng. Clayton Coal Clayton Coal Coal Canyon, Inc. Coal Crk. Can. Mng. Colowyo Coal	Somerset Denver (2) '' Grand Jct. Canon City Denver (2)	Hawk's Nest Lincoln Washington Coal Can. Strip Coal Creek Canon Red Wing	Same Erie '' Same '' Craig	Gunnison Weld '' Mesa Fremont Moffat

RAILROADS - OPENINGS - SEAMS

				NINGS			SE	AM
	D 11	Shaft		Rock	70		_	D: . 1
Superintendent R.R.		Depth	Slope		Drift	<u>Ft.</u>	<u>In.</u>	Pitch % - 0
	Cap.		Le	ngth				% =
Albert Amiday, Sr.	10		110			2	8	
Casimiro Alvidrez	25					6		
Nickie Rocchio	50				Yes	5	6	1%
Nickie Rocchio	50		STRIP			6		, ,
D. A. Johnson	6				Yes	5		
Willis S. Barstow	35				Yes	5	6	3%
William A. Bear D&RG	675			300		8		
Lloyd J. Beer	125		STRIP			4	6	7%
Henry Bendetti	25			30		5		54-57 ⁰
Fred Ortiz	8		200			4	6	80
Sam Gonzales	50				Yes	4		
Mariano Pesina	20		1,000			4		
Melvin Moore	50				Yes	6		
Tom Harris U.P.	1,000	245				7		
John Bowman	4				Yes	2	10	
Robert Bradley	15				Yes	7		45 ⁰
Sam Vasquez	15					3	10	3%
L. W. Ingles C&W	5,000		1,578(E)	Yes(\	W) 5		2-30%
Frank Yellico	100				·	6	7	6%
Frank Adamic	25				Yes	3	4	6%
Lloyd J. Beer	150				Yes	5	4	10%
Raymond Jermance	50		1,400			5	6	10%
J. E. Griffin	6					3	6	30
Ralph Carestia	50		STRIP			4	4	5%
Charles Farrington	100				Yes	6		2%
Ralph Audin	300		300			7		
William Ferguson U.P.	1,500		1,800			8		
William Ferguson U. P.	1,200	430				8		
Howard U. Motz	40		STRIP			6	8	15%
John A. Javernick	40				Yes	4	6	6%
J. Arthur Haske	900		125			23		3-6%

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Columbia-Geneva Div U. S. Steel Corp.	. Dragerton, Utah San Francisco, Cal		Somerset	Gunnison
Corley Co., The Corley Co., The	Colorado Spgs.	Corley Strip Pioneer Can. #2 &	Florence	Fremont
Delcarbon Coal	Walsenburg	Calumet #2	Same	Huerfano
Double Dick Coal Dry Creek Coal Eagle Head Coal Ellis Coal Emmons Bros. Coal	Florence Hayden Grand Jct. Somerset Paonia	Double Dick Cardinal McGinley Black Beauty Emmons	Same	Fremont Routt Mesa Gunnison Delta
Energy Coal Fogg, Lyndon H. Fontanari, R. & A. Four Mile Coal, Inc. Franceville Coal	Indnpls., Ind. Cedaredge Clifton Glenwood Spgs. Colorado Spgs.	Energy Strip Red Canon #1 Go-Boy Four Mile Franceville Strip	Stmbt. Spgs Same	.Routt Delta Mesa Garfield El Paso
Garcia, Pete Golden Quality Coal Green Valley Coal Grey Creek Coal Guadagnoli Bros.	Boncarbo Canon City Cedaredge Trinidad	Pete's Golden Quality #4 Green Valley #2 Grey Creek #4 Engleville	Same	Las A. Fremont Delta Las A.
Haas, William, Jr. Hay Gulch Coal Hayden Coal Hesperus Coal Imperial Coal	Rifle Hesperus Hayden Hesperus Denver (2)	Black Raven Hay Gulch #2 Babson Hesperus #4 Eagle	Same '' '' Erie	Garfield La Plata Routt La Plata Weld
Imperial Coal Iuppa, Albert & Son Jenkins & Mathis Juanita Coal & Coke Kerr Coal	Denver (2) Trinidad Meeker Bowie Cameo	Imperial Starkville #4 Rienau King Cameo	Erie Same	Weld Las A. Rio Bl. Delta Mesa

		OPENINGS				SEAM		
		Shaft	Rock	Rock				
Superintendent R.R.	Daily	Depth	Slope	Tunnel	Drift	Ft.	In.	Pitch
	Cap.			ength				%-0
					(]	B-25		
A. M. Morrison D&RG	996				((C- 7		4-7%
Thomas E. Shelnutt	400		STRIP			3	7	8%
Thomas E. Shelnutt	600				Yes	6		8%
George Sudar D&RG	100		700			4	2	4%
Joe Rohar	100					6		
E. R. Todd	400				Yes	12		7%
Lawrence O. Downing	15				Yes	11		3%
Ellis Axelson	80				Yes	10	6	0 /0
John T. Emmons	30				Yes	8	10	4%
					105	0		- 70
Gerald R. Jones D&RG	3,000		STRIP			8		10%
Lyndon H. Fogg	30		350			4	6	6%
R. Fontanari	20				Yes	6		3%
C. A. Betz	20		350			8		42°
L. F. Gordley	50		STRIP			6	3	
v								
Pete Garcia	2				Yes	5		
Dominic Carestia	100				Yes	6	6	3%
D. Gail Brooks	50		250			6		3 ⁰
Lawrence Rivera	8				Yes	3	6	3%
Chas. Guadagnoli	10				Yes	9		
								~
Wm. Haas, Jr.	15				Yes	22		57%
Wm. C. Hunt	7				Yes	6	6	100
S. J. Prewitt	15				Yes	10	6	14%
Joe De Luzio	15				Yes	9	1	40
Frank Kolar U.P.	1,500	370				9		$1\frac{1}{2}\%$
Frank Kolar U.P.	9 0 0	300				10	6	
Albert Iuppa, Jr.	13		300			5		
Wm. Jenkins, Jr.	30				Yes	20		18 ⁰
Robert F. Bowie D&RG	300					16		7%
H. J. Kissell D&RG	300			950	Yes	6		30

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
King Coal Last Chance Coal Lobato, Fidel Martinez, Albert Maschio Coal	Hesperus Canon City Durango Cokedale Raton, N. M.	King Last Chance Blue Flame Martinez Hastings #3	Same '' '' '' Trinidad	La Plata Fremont La Plata Las A.
Mathews, John McNeil Coal Corp. Mid-Continent C. &C. Montoya Coal Morning Glory Coal	Oak Creek Denver (2) Carbondale Trinidad Walsenburg	Johnnie's Sterling Dutch Creek Aguilar-Imperial Morning Glory	Same Dacono Same	Routt Weld Pitkin Las A. Huerfano
Moschetti, N. J. Nichols, B. A. & W. B. North Fork Coal Nu-Mine Coal P & M Coal Mng.	Canon City Fruita Denver (2) Gunnison Kansas City, Mo	Canon Zenith #2 Hunter Edwards Nu-Mine #2 D.Edna Strip	Same '' Somerset Same Oak Creek	Fremont Mesa Gunnison '' Routt
Pantazes, Pete Peabody Coal (Edna) Peacock Coal Peacock Coal Phillips, H. B.	Aguilar St. Louis, Mo. Durango Trinidad Palisade	Prosperity #2 Navajo Strip Peacock Peacock Gearhart	Same Nucla Same	Las A. Montrose La Plata Las A. Mesa
Pilcher, Oren A. Pilcher, Oren A. Pilcher, Oren A. Red Ash Coal Rex Carbon Fuel	Mancos '' '' Walsenburg Florence	Burnwell #1 Burnwell #2 Coal King #2 Maitland #2 Rex Carbon	Same	La Plata '' '' Huerfano Fremont
Routt Mining Corp. Silengo Coal Skinner Coal Smith, A. G. Sonchar Coal	Oak Creek Craig Walsenburg Gunnison Ration, N. M.	Keystone Wise Hill #3 Gordon Baldwin Delagua #4	Same '' '' '' Delagua	Routt Moffat Huerfano Gunnison Las A.

		OPENINGS	5		SEA	A M
Superintendent R.R.	Daily Cap.	Shaft Rock Rock Depth Slope Tunne Length	<u>Drift</u>	<u>Ft</u> .	<u>In.</u>	Pitch % - 0
Irvin A. Smith	30		Yes	7		5%
Steve Kopic Fidel Lobato	$\frac{40}{10}$		Yes Yes	6 6	2	2%
Albert Martinez	2		105	2	4	2 70
Adolph Maschio	16		Yes	7	3	6-8 ^o
John Mathews	5		Yes	4		$4\frac{1}{2}^{0}$
A. W. Newcomb U. P.	550	358		7	11	0
Ed Selan D&RG	2,000		77 -	6	8	14 ⁰
Milton Montoya G. M. Turner D&RG	$\frac{15}{175}$		Yes Yes	5 4	6 6	
G. M. Turner Dang	110		165	7	U	
N. J. Moschetti	15			3	6	6%
Bryan A. Nichols	10		Yes	7		
Luther Baughman D&RG	150		Yes	6		
Joseph E. Partch	150		Yes	6		3%
George A. Hays D&RG	3,500	STRIP		6		10%
Pete Pantazes	4		Yes	2	6	70
A. R. Ross	500	STRIP		5	6	5%
G. M. Gale	10		Yes	6		3%
Eugene Lopez	25 30		Yes Yes	6 5	3	12%
H. B. Phillips	30		ies	5	3	12%
Oren A. Pilcher	35		Yes	6	6	
Oren A. Pilcher	15		Yes	6	6	
Oren A. Pilcher	10		Yes	6	6	-~
Clarence Clair	70		Yes	3	6	5%
Frank Sacchetta	80			3	10	12%
Carl M. Steele D&RG	50			5	10	
Charles Silengo	220		Yes	16		15%
Frank Zubal D&RG	100			4		
A. G. Smith	15		Yes	6 5		1%
Joe Sonchar, Jr.	40		Yes	9		1 %

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Staley-Gordon Coal, Inc Staples, S. L., Jr. States Coal Sullivan Coal Sun Coal	.Rangely Gunnison Cedaredge Oak Creek Hayden	White River Ohio Creek #2 Top Apex Sun	Same	Rio Bl. Gunnisor Delta Routt
Supancic Coal Thompson Crk. C&C Co	Cameo rp. Denver (3) '' '' Canon City	Roadside Thompson Crk. #1 Thompson Crk. #2 Thompson Crk. #3 Twin Pines	11	Mesa Pitkin '' Fremont
Vento Coal Victory Coal Zellitti, F. Jr., N. & C.	Florence Durango Durango	Vento Victory #3 Morning Star	Same	Fremont La Plata

			OPE	NINGS			SI	EAM
		Shaft	Rock	Rock				
Superintendent R.R.	Daily	Depth	Slope	Tunnel	Drift	Ft.	In.	Pitch
	Cap.		Le	ength				% - 0
Conrad Staley	30				Yes	7	10	12%
S. L. Staples, Jr.	9				Yes	5	10	5%
Welland W. States	60				Yes	7		6%
Robert L. Sullivan	10				Yes	4	6	7%
Thomas E. Barton	1				Yes	6	O	15 ⁰
Louis Supancic	25				Yes	6		5%
Andrew Allan	500				Yes	8		$30^{\rm O}$
Andrew Allan	125				Yes	7		30°
Andrew Allan	250				Yes	9		30°
Budgie C. Fazzino	70				Yes	5	6	4%
Tony Vento	100				Yes	5	8	7%
Fred Forbidussi	100				Yes	6		
Frank Zellitti, Jr.	25				Yes	5	10	

REPORT OF PRODUCTION

MINE	
BY	
t	
COUNTY	-
BY	
1	
ACCIDENTS	
DAYS,	The state of the s
MEN,	The state of the s

Blue Ribbon Coal Emmons Brothers Coal Green Valley Coal Lyndon H. Fogg States Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons Diamond Canon Liberty Coal Canon Monarch Coal Canon Oak Creek Coal Canon Carestia	AATOR oal		Days	TONNAGE	15	atal Non-Fat
TABlue Ribbon Coal4RibbonEmmons Brothers Coal5en Valley #2Green Valley Coal3Canon #1Lyndon H. Fogg3Canon #1Lyndon H. Fogg3TALS - 6Exates Coal41PASOFranceville Coal2Ceville StripFranceville Coal2TALS - 1Annex Coal2MONTAnnex Coal2x #2Annex Coal2x #2Annex Coal4k Knight. #4Alvidrez & Sons3n Bleer Coal & Construction, Inc.4k Knight. #4Alvidrez & Sons3n Liberty #3Canon Black Diamond Coal6canon Liberty CoalCanon Monarch Coal5n Monarch #4Canon National Coal2n Oak Creek #2Canon Oak Creek Coal4n Oak Creek #2N. J. Moschetti4stia StripRalph Carestia4	oal					
Ribbon Ribbon Ribbon Blue Ribbon Coal Emmons Brothers Coal Green Valley Coal Juanita Coal & Coke Canon #1 Lyndon H. Fogg States Coal Ceville Strip TALS - 1 MONT X #2 Annex Coal X #2 Annex Coal K Knight. #4 Alvidrez & Sons n Black Diamond Canon Liberty Coal Monarch #4 Canon Nonarch Coal Monarch #4 Canon Nonarch Coal Moschetti N J. Moschetti Strip Ralph Carestia Ralph Carestia Ralph Carestia	bbon Coal s Brothers Coal falley Coal Coal & Coke					-
canon #1 Green Valley Coal Canon #1 Lyndon H. Fogg Canon #1 States Coal Canon #1 States Coal Canon #1 States Coal Canon #2 States Coal Canon #3 States Coal Canon Black Diamond Coal Canon Black Diamond Coal Canon Dack Creek #2 Canon National Coal Canon Oak Creek #2 Canon Oak Creek Coal Canon Oak Creek Coal Canon	s Brothers Coal Falley Coal Coal & Coke	4	50	625		1
Canon #1 Canon #1 Lyndon H. Fogg Canon #1 Lyndon H. Fogg States Coal States Coal DTALS - 6 PASO Ceville Strip MONT X #2 MONT X #2 X #2 Strip Annex Coal K Knight. #4 Alvidrez & Sons n Black Diamond Canon Black Diamond Coal Canon Liberty Coal n Monarch #4 Canon National n National n Oak Creek #2 N. J. Moschetti States Coke 21 41 41 41 41 41 41 44 Alvidrez & Sons n Black Diamond Coal Canon Liberty Coal n Monarch Coal Canon National Coal n National n Oak Creek Coal n Serith #2 Canon Oak Creek Coal n Serith #2 Canon Oak Creek Coal n Serith #2 Canon Carestia Ralph Carestia Ralph Carestia	Valley Coal Coal & Coke	2	186	4,670		
Canon #1 Lyndon H. Fogg States Coal States Coal DASO Ceville Strip MONT X #2 X #2 X #2 X #2 Strip K Knight #4 Alvidrez & Sons n Black Diamond n Liberty #3 Canon Dak Creek Coal n Oak Creek #2 N. J. Moschetti Strip Ralph Carestia Strip Juanita & Coal & Coke 2 Annex Coal Annex Coal Annex Coal Alvidrez & Sons an Black Diamond Canon Black Diamond Coal Canon National Coal Canon National Coal Alvidrez & Sons N. J. Moschetti Ralph Carestia Ralph Carestia	Coal & Coke	2	186	6,815		
Canon #1 Lyndon H. Fogg States Coal States Coal PASO Ceville Strip MONT X #2 MONT X #2 Annex Coal X #2 Annex Coal Alvidrez & Sons an Black Diamond Coal Canon Black Diamond Coal Canon Liberty Coal n Liberty #3 Canon Monarch Coal n National n Oak Creek Coal n National n Oak Creek Coal n Serip Alvidrez & Sons Alvidrez & Sons Alvidrez & Sons Canon Dack Creek Coal n National n Oak Creek Coal n Serip Alvidrez & Sons		21	74	17,019		
PASO Ceville Strip Franceville Coal TALS - 6 PASO Ceville Strip Franceville Coal TALS - 1 MONT X #2 MONT X #2 Annex Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons an Black Diamond Canon Black Diamond Coal Canon Liberty Coal Canon Monarch Coal Canon Monarch Coal Canon National Coal Canon Oak Creek Coal Canon Oak Creek Coal Canon Oak Creek Coal Canon Canon Calon Calon Canon Calon		က	241	4,208		
ip Franceville Coal Annex Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons mond Canon Black Diamond Coal #3 Canon Liberty Coal Canon Monarch Coal Canon National Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal		3	126	1,706		
ip Franceville Coal Annex Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons mond Canon Black Diamond Coal #4 Canon Liberty Coal Canon Monarch Coal Canon National Coal Sk #2 Canon Oak Creek Coal Canon Oak Creek Coal Sk #2 Canon Carestia Ralph Carestia		41	863	35,043	ı	1
ip Franceville Coal Annex Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons mond Canon Black Diamond Coal #3 Canon Liberty Coal Canon Monarch Coal Canon National Coal Sk #2 Canon Oak Creek Coal Canon Oak Creek Coal Sk #2 Canon Carestia Ralph Carestia						
Annex Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons mond Canon Black Diamond Coal Canon Liberty Coal #4 Canon Monarch Coal Canon National Coal Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Ralph Carestia		2	84	1,207		
Annex Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons mond Canon Black Diamond Coal #3 Canon Liberty Coal Canon Monarch Coal Canon National Coal Canon Oak Creek Coal Sk #2 N. J. Moschetti Ralph Carestia		2	84	1,207	ŧ	-
Annex Coal Annex Coal Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons mond Canon Black Diamond Coal #3 Canon Liberty Coal Canon Monarch Coal Canon National Coal Canon Oak Creek Coal Sk #2 Canon Oak Creek Coal Ralph Carestia						
Annex Coal Beer Coal & Construction, Inc. Alvidrez & Sons mond Canon Black Diamond Coal #3 Canon Liberty Coal #4 Canon Monarch Coal Canon National Coal Canon Oak Creek Coal Ralph Carestia Ralph Carestia	Coal	2	20	1,035		
Beer Coal & Construction, Inc. Alvidrez & Sons d Canon Black Diamond Coal Canon Liberty Coal Canon Monarch Coal Canon National Coal Canon Oak Creek Coal N. J. Moschetti Ralph Carestia	Coal	2	223	11,130		
Alvidrez & Sons Id Canon Black Diamond Coal Canon Liberty Coal Canon Monarch Coal Canon National Coal Canon Oak Creek Coal N. J. Moschetti Ralph Carestia	al & Construction, Inc.	4	222	20,520		
canon Black Diamond Coal 6 Canon Liberty Coal 5 Canon Monarch Coal 5 Canon National Coal 2 Canon Oak Creek Coal 2 N. J. Moschetti 4 Ralph Carestia 2	& Sons	က	311	6,699		2
Canon Liberty Coal Canon Monarch Coal Canon National Coal Canon Oak Creek Coal N. J. Moschetti Ralph Carestia	lack Diamond Coal	9	233	36,776		
Canon Monarch Coal 5 Canon National Coal 2 Canon Oak Creek Coal 2 N. J. Moschetti 4 Ralph Carestia 2	iberty Coal	4	244	7,056		
1 Canon National Coal 2 eek #2 Canon Oak Creek Coal 2 #2 N. J. Moschetti 4 Ralph Carestia 2	Ionarch Coal	2	230	16,805		1
sek #2 Canon Oak Creek Coal 2 #2 N. J. Moschetti 4 Ralph Carestia 2	lational Coal	2	174	8,475		
#2 N. J. Moschetti 4 Ralph Carestia 2	ak Creek Coal	2	19	128		
Ralph Carestia 2	foschetti	4	224	3, 793		-
	arestia	2	26	945		
9	anon Coal	9	233	16,466		1
Coal Creek Canon Coal Creek Canon Mining 4 247	eek Canon Mining	4	247	8, 533		1
Corley Strip Corley Company, The 3 3		က	က	1,200		
Double Dick Coal 4 206	Dick Coal	4	206	6,677		

Golden Quality #4	Golden Quality Coal	4	282	21,980		1
Last Chance	Last Chance Coal	က	300	12,130		Н
Pioneer Canon #2 & #3	Corley Company, The	17	182	83, 893		1
Rex Carbon	Rex Carbon Fuel	9	228	13,900		
Twin Pines	Twin Pines Coal	9	245	17,805		
Vento	Vento Coal	6	245	26, 441		7
TOTALS - 22		98	4,097	322, 387	ı	10
GARFIELD						
Black Raven (Clsd.)	William Haas, Jr.	4	94	1,257		
Four Mile	Four Mile Coal, Inc.	2	291	2,530		
Harvey Gap #3	Bradley Brothers Enterprise	4	62	283		
New South Canon	Henry & Louis Bendetti	4	271	4,480		1
TOTALS - 4		14	718	8,550	8	1
GUNNISON						
Baldwin	A. G. Smith	2	199	1,430		
Bear	Bear Coal	22	127	59,518		7
Black Beauty	Ellis Coal	9	163	11,031		
Edwards	North Fork Coal	11	52	6,531		
Hawk's Nest	Champion Coal Mining	14	131	17,611		
Nu-Mine #2	Nu-Mine Coal	∞	204	15,203		
Ohio Creek #2	S. L. Staples, Jr.	2	218	1,982		
Somerset	Columbia-Geneva Div. U.S.					
	Steel Corp.	95	233	49,932		2
TOTALS - 8		160	1,327	163, 238	-	5
HUERFANO						
Bert's #2	A B C Coal	73	29	989		
Black Beauty	Black Beauty Coal	က	81	419		
Calumet #2	Delcarbon Coal	19	160	14, 796		-
Gordon	Skinner Coal	4	219	6,045		
Maitland #2	Red Ash Coal	11	191	12,648		1
Morning Glory	Morning Glory Coal	8	201	9, 138		2
TOTALS - 6		47	919	43, 732	ı	4

COMPANY OR OPERATOR Average
Pilcher
Zellitti
•
C. F. & I. Corporation
Partners
Guadagnoli Brothers
Grey Creek Coal
Son Coal

MESA						
Blue Flame	W. Barstow, A. Aul, P. Peterson	က	161	4.572		
Cameo	Kerr Coal	26	226	63,882		4
Coal Canyon Strip	Coal Canyon, Inc.	2	122	5,609		
Gearhart	Homer B. Phillips	5	98	2,629		
Go-Boy	Rudolph & Alta Fontanari	2	8	15		
Hunter	B.A. & W.B. Nichols	2	29	209		
McGinley	Eagle Head Coal	က	135	1,796		
Roadside (Supancic)	Supancic Coal	2	89	209		
TOTALS - 8		45	856	79,319	ı	4
MOFFAT						
Red Wing	Colowyo Coal	29	137	103,129		4
Wise Hill #3	Silengo Coal	5	253	55, 169		
TOTALS - 2		34	390	158, 298	!	4
MONTROSE						
Navajo Strip	Edna Coal $(8\frac{1}{2} \text{ mo.})$	-	196	78 994		
" (Nucla)	Peabody Coal $(3\frac{1}{2} \text{ mo.})$	11	T 20	0,01		
TOTALS - 1		11	196	78,294	8	9
PITKIN						
Dutch Creek	Mid-Continent Coal & Coke	29	243	387,635	,	9
Thompson Creek #1	Thompson Creek C. & C. Corp.	24	215	31,579		ಣ
Thompson Creek #2	Thompson Creek C. & C. Corp.	21	215	30, 786		က
Thompson Creek #3	Thompson Creek C. & C. Corp.	33	215	49,252		5
TOTALS - 4		145	888	499,252		17
RIO BLANCO						
Rienau	Jenkins & Mathis Coal	အ	217	3,792		1
White River	Staley-Gordon Coal, Inc.	3	159	2,795		
TOTALS - 2		9	376	6,587	1	1

COUNTY	COMPANY OR OPERATOR	No. Men Average	Total	TONNAGE Estal Non-Est	ACCI	ACCIDENTS
ROUTT			2			T TOUT
Apex (Clsd.)	Sullivan Coal	4	9	46		
Babson	Hayden Coal	က	62	1,060		
Cardinal	Dry Creek Coal	15	168	44,301	Н	4
Edna Strip	Pittsburg & Midway C. Mng.	22	135	428,045		1
Energy Strip	Energy Coal	25	255	309,618		
Johnnie's	John Mathews	2	91	342		
Keystone	Routt Mining Corp.	2	154	3, 353		
Sun	Sun Coal	1	20	20		
TOTALS - 8		112	938	786,815	1	5
WELD						
Boulder Valley #3	Boulder Valley Coal	39	213	113,604		2
Eagle	Imperial Coal	61	196	234,936		1
Imperial	Imperial Coal	18	104	42,073		1
Lincoln	Clayton Coal	37	146	110,530		1
Sterling	McNeil Coal	26	194	72,679		
Washington	Clayton Coal	51	204	147,210		3
TOTALS - 6		232	1,057	721,032	ì	11
GRAND TOTALS -						
104 Mines		1,393	16,844	16,844 3,707,440	П	02

COAL PRODUCTION FROM 1864 THROUGH 1963

Year	Tonnage	Year	Tonnage	Year	Tonnage
1864	500	1898	4, 174, 037	1932	6,616,525
1865	1,200	1899	4, 826, 939	1933	5, 284, 872
1866	6, 400	1900	5, 495, 734	1934	5, 251, 003
1867	17,000	1901	6,021,405	1935	5, 953, 601
1868	10,500	1902	7,522,923	1936	6, 868, 801
1869	8,000	1903	7,775,302	1937	7, 222, 092
1870	4,500	1904	6,776,551	1938	5, 730, 291
1871	15,600	1905	8,989,631	1939	6,002,125
1872	68, 540	1906	10, 308, 421	1940	6,673,359
1873	69, 997	1907	10,965,640	1941	7,008,037
1874	77, 372	1908	9,773,007	1942	8, 131, 764
1875	95, 838	1909	10,722,490	1943	8, 372, 683
1876	117, 666	1910	12, 104, 887	1944	8, 202, 401
1877	160,000	1911	10, 197, 595	1945	7,656,612
1878	200, 630	1912	11,016,948	1946	5,928,823
1879	322, 732	1913	9, 268, 939	1947	6, 381, 016
1880	375,000	1914	8,201,423	1948	5,682,512
1881	706, 744	1915	8,715,397	1949	4,578,170
1882	1, 161, 479	1916	10,522,185	1950	4,274,887
1883	1,220,593	1917	12,515,305	1951	4, 111, 945
1884	1, 130, 024	1918	12,658,055	1952	3, 643, 523
1885	1, 398, 796	1919	10,406,543	1953	3, 598, 867
1886	1, 436, 211	1920	12,514,693	1954	2, 922, 365
1887	1, 791, 735	1921	9, 141, 947	1955	3, 366, 490
1888	2, 185, 477	1922	10,003,610	1956	3, 303, 661
1889	2,400,629	1923	10,336,735	1957	3,324,787
1890	3, 075, 781	1924	10,501,088	1958	2,972,191
1891	3, 512, 632	1925	10, 440, 387	1959	3,293,686
1892	3, 771, 234	1926	10,616,760	1960	3,624,572
1893	3, 947, 056	1927	9,781,580	1961	3, 700, 692
1894	3,021,028	1928	9,921,585	1962	3, 392, 570
1895	3, 339, 495	1929	9,934,064	1963	3,707,440
1896	3, 371, 633	1930	8, 238, 094		
1897	3, 565, 660	1931	6,604,063		

COAL SHIPMENT AND DISPOSAL

			1		
			POWER	OUT OF	CHEM.
COUNTY	RAILROAD	TRUCK	& HEAT	STATE	TREATED
Delta	6,390	28, 587	66	1,184	11,408
El Paso	-	1,207	-	<u>-</u>	500
Fremont	5,509	316, 815	63	5,404	6,560
Garfield	-	8,550	-	-	2,150
Gunnison	118,499	44, 509	230	110,338	72,694
Huerfano	3,209	40,523	-	9,891	9,580
La Plata	7,183	20, 555	10	600	3,500
Las Animas	748,600	26, 364	974	2,567	200
Mesa	-	15,427	*63,892	-	218
Moffat	145, 258	13,040	-	-	53, 837
Montrose	-	78, 294	-	-	-
Pitkin	499,252	-	-	111,617	-
Rio Blanco	-	6, 577	10	1,500	4,844
Routt	747, 131	39, 649	35	47,764	67,828
Weld	473,540	241,944	5,548	-	15, 811
TOTALS	2,754,571	882,041	70,828	290,865	249,130

^{*}Public Service Power Plant from Cameo, by conveyor - 63,882 Tons

SIZES, GRADES, BY COUNTY

	•		OTHER			
MINE RUN	LUMP	EGG	GRADES	NUT	PEA	SLACK
2,027	9,470	-	1,044	1,800	-	20,702
1,207	-			-	-	-
101,387	28, 346		10,508	10,544	11,217	160,385
7	1, 345	-	-	-	208	6,990
65,135	19,695	-	212	4, 511	-	73,685
-	6,007	7,822	102	2,555	4,141	23,105
15,172	3,703	13	850	214	3,054	4,742
3,239	4, 391	-	889	-	749,538	17,881
5,611	1,986	-	9	559	2	71,152
55, 169	10,934	-	-	17, 338	. –	74, 857
78,294	-	-	-	-	-	-
499, 252	-	-	-	-	-	-
-	650	-	-	527	-	5,410
314, 423	26, 092	co-	28,611	8,776	56, 577	352, 336
-	42, 542	78, 793 °	-	1,545	11,548	586, 604
1,140,923	155, 161	86,628	42, 225	48, 369	836, 285	1, 397, 849

MECHANICAL LOADING

		ME	СНА	NIC	AL	LO	ADE	ERS							
		Chain Conveyors Mainline Mobile						MONG OF GOAT							
		Conve	yors	Ivia	inii	ne	MOK	one			TONS OF COAL				
COUNTY	Shaker Type	Short Face	Room Length	Belt	Long Wall	Chain	Track	Caterpillar	Power Shovel	Small Portable Conveyors	TOTALLY LOADED BY MECHANICAL DEVICES (None or very little hand labor)				
Delta	5	_	1	e00	_	_	2	4		1	27,420				
El Paso	_	-	-	_	-	-	_		-	-	-				
Fremont	16	-	5	-	1	-	1	16	-	2	244,671				
Garfield	-	1	-	-	-	1	-	-	-	1	_				
Gunnison	7	-	-	3	-	000	-	12	-	-	159,826				
Huerfano	10	-	3	-	-	1	-	-	-	-	27,444				
La Plata	4	-	-	1	-	-	-	2	-	-	1,000				
Las Animas	2	-		12	-	_	-	11	-	-	2,030				
Mesa	17	-	_	-	-	-	_	1	1	1	69, 455				
Moffat	-	-	-	-	_	603	-	4	-	-	103, 129				
Montrose	_	-		-	-	-	-	-	-	-	-				
Pitkin	22	4	4	6	prio (-	-	3	-	-	cos				
Rio Blanco	2	-	-	-	-	-	-	3	-	-	6,587				
Routt	6	-	***	2	-	-	-	4	-	_	48, 714				
Weld	3	-	-	2	-	-	-	12	-	1	2,995				
TOTALS	94	5	13	26	1	2	3	72	1	6	693, 271				

COLORADO - 1963

		MIN					
TONS OF COAL HAND LOADED ONTO MECHANICAL DEVICES	Undercutting	Electric Shearing	Combination Undercutting and Electric Shearing	Electric Drills	Compressed Air Drills	Continuous Miners	TOTAL TONNAGE
7,123	8	_	2	12	-	-	35, 043
-	-	-	-		-	-	1,207
3, 921	31	-	1	32	-	2	322, 387
2,530	- 1	-	-	9	-	-	8,550
-	22		1	26	5	-	163,238
13, 017	25	-	-	15	-	-	43,732
16,995	16		-	13	1	-	27, 748
5, 252	5	-	5	3	12	7	775, 938
2,629	21	-	-	17	-	-	79,319
-	5	-	-	10	-	1	158, 298
-	-	_	-	-	-	-	78, 294
111,617	-	-	-	29	-	3	499, 252
-	4	_	1	2	-	-	6,587
96	11	-	1	17	-	-	786, 815
-	14	1	1	36	-	12	721,032
163, 180	162	1	12	221	18	25	3,707,440

FATAL ACCIDENTS

Date	Name	Mine	County	Cause	Occupation	Age	Exp.
6-21	Robert Holiday	Cardinal	Routt	Haulage	Shuttle car Operator	36	15

FOUR YEAR COMPARISON

1	NON-I	ATA	LS			FAT	ALS	
1960	1961	1962	1963	Causes of Injury	1960	1961	1962	1963
15	11	18	16	Falls of roof	1	1	2	
8	7	2	2	Fall of face or rib				
6	13	2	3	Falling objects				
9	7	4	6	Falls of persons				
13	17	11	12	Handling materials				
5	1	3	3	Hand tools				
3	1		2	Striking vs. objects				
12	2	15	13	Haulage	1	2	1	1
	1		4	Explosion of gas				
1	1			Explosives				
	2	1		Electricity				
4	6	13	8	Machinery		2		
	7	2	1	Jack pipes				
1				R.R. cars				
1		3		Others				
78	76	74	70	Totals	2	5	3	1

ACC	IDENT S	STATISTICS			
-	Fata	lities	Non-Fatals		
	1962	1963	1962	1963	
Fatalities	3	1			
Non-Fatals/Compensable			74	70	
Per 1,000 employed	1.88	0.718	46.42	50.25	
Men employed per injury	531	1,393	21.54	19.90	
Tonnage per injury	1,130,857	3,707,440	45,846	52, 963	
Per million tons	.884	. 269	2.18	1.88	
(Corrected)					

Dependents:	Widows	3	1
Dependents.	WIGOWS	υ	7
	Children	4	5

Successful Candidates in Examination for Coal Mine Officials

November 2, 1963

Mine Foreman	Fire Boss	Additional rating after Fire Boss Experience
Bear, Charles Carestia, Tony Robertson, John, Jr.	Alvidrez, Casey, Jr. Beacco, Dominic Bear, William A. Cerise, Edward J. Ewing, Glenn H. Javernick, John A. Rocchio, Nickie, Jr. Smith, James M.	Mine Foreman Mine Foreman Mine Foreman Assistant Mine Foreman Mine Foreman Mine Foreman

Strip Pit Mine Foreman

Archer, Bryan, Jr. Hold - First Aid
Freed, W. Webster
Lake, Joseph, Jr. Hold - First Aid and Colorado residence
Nelson, John
Quarcelino, Nate
Rocchio, Nick, Jr.
Shelnutt, Thomas E.
Silengo, Charles L.
Thomas, Harold

BOARD OF EXAMINERS

Thomas Allen, Chief Inspector Niles E. Grosvenor, E. M., Secretary Frank Kolar, Jr. Mathew J. Mlakar Robert L. Plum - Appointed April 24, 1963

COAL PRODUCTION AND VALUES BY COUNTY FOR 1963 COKING, BITUMINOUS & SUB-BITUMINOUS COALS

TONNAGE	VALUATION
35,043	\$ 167,197.26
1,207	5,190.10
322,387	1, 556, 820. 04
8,550	40,289.62
163,238	1,039,923.72
43,732	220, 409. 28
27,748	139, 849. 92
775,938	7, 171, 235. 22
79, 319	399, 318. 58
158,298	797, 821. 92
78,294	394,601.76
499, 252	5, 083, 360. 98
6,587	33, 198. 48
786,815	3, 965, 547. 60
721,032	3, 100, 437. 60
	35,043 1,207 322,387 8,550 163,238 43,732 27,748 775,938 79,319 158,298 78,294 499,252 6,587 786,815

Valuation figures from the Department of Natural Resources of the United States Bureau of Mines.

GRAND TOTAL OF STATE \$24,115,202.08



